Department of Toxic Substances Control

The Mission of the Department of Toxic Substances Control is to provide the highest level of safety, and to protect public health and the environment from toxic harm.

State of California

California Environmental Protection Agency

Fact Sheet, November 2008

Cleanup Plan for Contaminated Groundwater at the Golden Technology Site is Available for Review and Comment

A draft plan (called a Remedial Action Plan, or RAP) to treat groundwater contaminated with trichloroethylene (TCE) and cis-1,2-dichloroethylene (DCE) at the Golden Technology Site is open for public review and comment from November 7 through December 12, 2008. The site is located at 3017, 3019 and 3033 Santa Rosa Avenue in Santa Rosa, California.

This fact sheet provides a brief summary of:

- Why Cleanup Is Necessary
- History and Operations at the Site
- Environmental Investigations
- Proposed Cleanup Options
- California Environmental Quality Act
- Next Steps
- Where to Find the Documents
- Who to Contact for Information

Why Cleanup Is Necessary

There is no immediate health risk because groundwater is not used for drinking water. Drinking water at the site is provided by the City of Santa Rosa municipal water supply. Therefore, the public is not exposed to unsafe levels of TCE and DCE in groundwater. However, DTSC has determined that the levels of TCE and DCE in the shallow groundwater are above state and federal drinking water standards and maypose a health risk if groundwater is used for purposes such as drinking or bathing.

PUBLIC COMMENT PERIOD

November 7, 2008 to December 12, 2008

PUBLIC MEETING
November 20, 2008
6:00-8:30 p.m.
Finley Community Center - Room Cypress A
2060 W. College Avenue, Santa Rosa, California

Your participation is encouraged. The draft Remedial Action Plan and other related project documents for this site are available for review and public comment at the locations listed on page 4. DTSC will make a final decision after all public comments have been reviewed and considered. Written comments must be postmarked no later than December 12, 2008 and mailed to Janet Naito, DTSC, 700 Heinz Avenue, Suite 200, Berkeley, CA, 94710. You may also email comments to jnaito@dtsc.ca.gov. no later than 5 p.m. on December 12, 2008.

Si desea información en español, comuníquese con Jacinto Soto al (510) 540-3842.

History and Operations at the Site

The Site consists of three parcels of land located in the southern portion of the City of Santa Rosa and is zoned for commercial use only. It is bounded by U.S. Highway 101 to the west, the Sunset Mobile Home Park on the north, the World of Carpets building on the south, and by a commercial building on the east. The 3017 Santa Rosa Avenue parcel contains a large one-story, flat roofed cinder-block building and is surrounded by asphalt paving or gravel-covered surface. The 3019 Santa Rosa Avenue property contains a large metal building, surrounded by a gravel-covered surface or vegetation. The 3033 Santa Rosa Avenue Property does not contain any buildings.

The Golden Technology Company manufactured printed circuit boards at the Site from approximately1966 through 1975. In 1972, the California North Coast Regional Water Quality Control Board (a sister agency to DTSC that specializes in surface water contamination) ordered the Golden Technology Company to cease discharging waste into a surface drainage ditch at the facility. In 1975, a fire occurred in the building located at 3017 Santa Rosa Avenue. Manufacturing operations were subsequently terminated and moved to Santa Clara.

In 1995, DTSC and the parties responsible for cleaning up the Site signed an agreement to conduct several activities, including sampling of soil and groundwater, at the site.

Environmental Investigations

Environmental investigations have been conducted at the Site between 1988 and 2008. Sampling results determined that the main contaminants in groundwater are TCE and DCE. Spills and leaks during past operations resulted in TCE and DCE migrating through the soil into shallow groundwater.

Water wells which previously operated at the Site produced water from both the shallow and deeper groundwater zones. Investigations determined that these wells provided a connection between the shallow and deeper groundwater zones and caused the contamination to migrate into the deeper groundwater zones and to flow offsite.

Following these findings, the water wells were decommissioned and sealed to effectively remove the pathway for contamination to migrate into the deeper groundwater zones.

A Maximum Contaminant Level (MCL) is the legal threshold limit on the amount of a hazardous substance that is allowed in drinking water. If a contaminant exceeds a MCL it may be considered a health risk. For example, TCE must not exceed a maximum contaminant level of 5 parts per billion and DCE must not exceed 6 parts per billion in public drinking water. The level of TCE (up to 4,420 parts per billion) and DCE (up to 2,410 parts per billion) in the shallow groundwater zone at the Site is greater than MCLs allow. This means that groundwater at the Site is considered unsafe for personal use. The concentrations of TCE and DCE are less than or near MCLs in the deeper groundwater zones monitored offsite.

DTSC approved a cleanup plan in 2004 to address TCE and DCE in soil at the Site. Three thousand, two hundred and eighty-three tons of impacted soil and two underground sumps were removed. Additionally, institutional controls (for example, extraction of groundwater for purposes other than site remediation or construction dewatering) were recorded for the site in late 2005. DTSC certified the soil clean in early 2006.

In 2006 and 2007, additional groundwater monitoring wells were installed at the Site. Treatability studies were conducted between 2005 and 2008 to determine whether bioremediation could be used to reduce TCE and DCE levels in the shallow groundwater. Bioremediation is a process that uses microorganisms, fungi, green plants or their enzymes to return the natural environment altered by contaminants to its original condition. During this process, microbes transform TCE and DCE into non-hazardous byproducts such as carbon dioxide, chloride, ethane and water. Results of the treatability study indicate that bioremediation represents an effective and feasible technology for reducing TCE and DCE levels in the shallow groundwater.

Proposed Cleanup Options

The following four cleanup options were evaluated to address groundwater contamination at the Site:

Alternative 1 – *No Action*.

Alternative 2 – *Monitored Natural Attenuation for the Upper and Lower Aquifer Zones*.

Alternative 3 – *Groundwater Extraction and Treatment for the Upper Aquifer Zone and Monitored Natural Attenuation for the Lower Aquifer Zone.*

Alternative 4 – *Bioremediation for the Upper Aquifer Zone with Monitored Natural Attenuation for the Lower Aquifer Zone.*

Based on careful analysis of the options, Alternative 4 (*Bioremediation and Monitored Natural Attenuation*) is recommended because it protects human health and the environment, treats the groundwater with the highest concentrations of TCE and DCE, and has a reasonable cost. In the bioremediation process, a carbon source called Hydrogen Release Compound or HRC would be injected into the shallow groundwater to stimulate microbial growth and conditions favorable to the in-place breakdown and destruction of contaminants (see figure below).

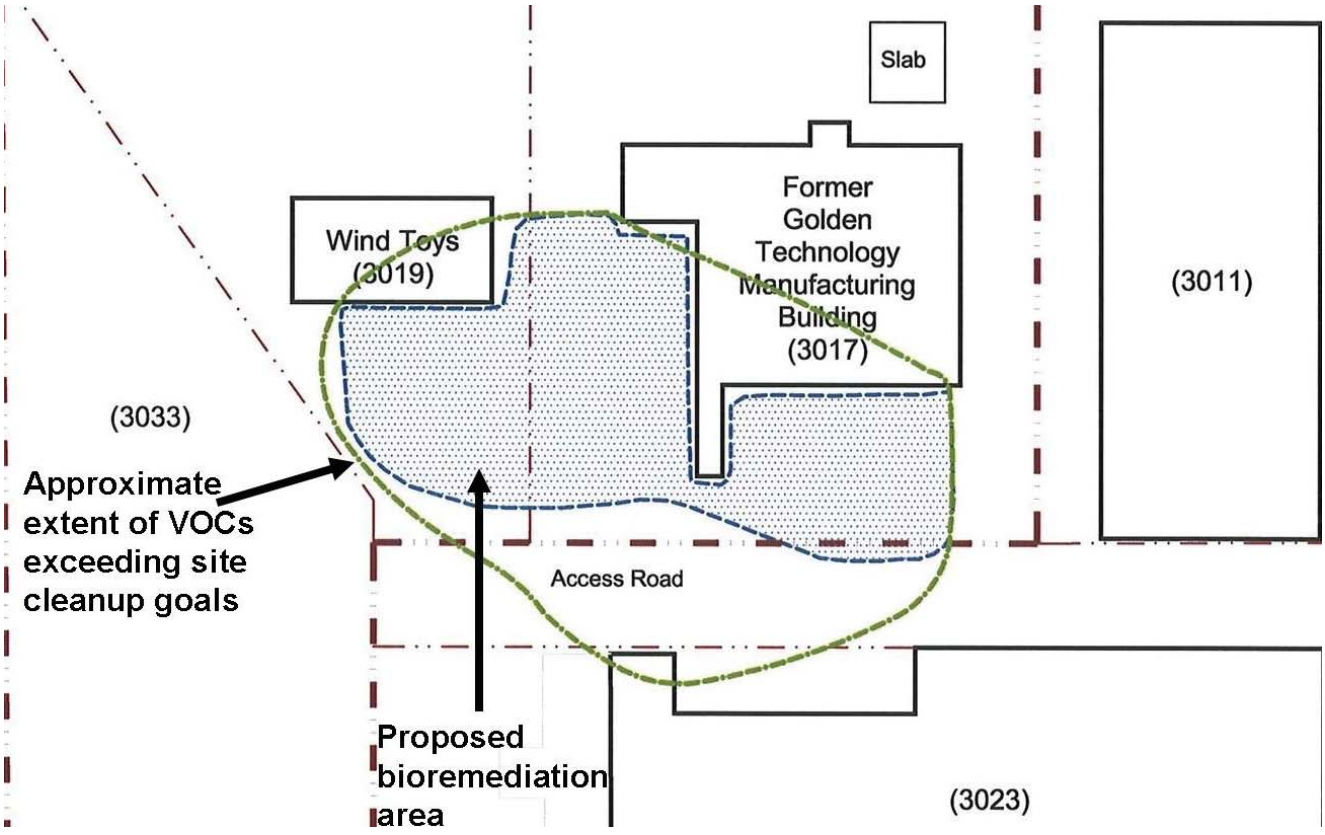
Monitored natural attenuation allows natural processes to reduce contaminant concentrations to acceptable levels. Monitored natural attenuation involves physical, chemical and biological processes that act to reduce the mass, toxicity, and mobility of contamination.

California Environmental Quality Act

As required by California state law (the California Environmental Quality Act, or CEQA) we studied the possible effects the proposed cleanup could have on the environment. The findings of the study can be reviewed in a document called a Notice of Exemption (commonly referred to as an NOE). The NOE states that the proposed cleanup will have no negative impact on the environment.

Next Steps

At the close of the public comment period, DTSC will review and consider any public comments and make any necessary revisions to the draft RAP. A Response to Comments document will be mailed to everyone who makes a comment or requests a copy and provides their name and address. The



Golden Technology Site

Figure Not To Scale

Response to Comment document will also be placed in the information repositories established for this project.

Installation of the groundwater monitoring wells and HRC injections are expected to take about four weeks. After this is done, a report will be submitted documenting the activities conducted. Groundwater monitoring will then be conducted to evaluate progress. Once sufficient monitoring has been conducted to verify that the remedy is operating as projected in the RAP, DTSC will certify that the remedy has been implemented and the site will move into the Operation and Maintenance phase.

Where to Find the Documents

The draft RAP and other related documents for the Golden Technology Site are available for review at the following locations:

Central Sonoma County Library
3rd & E Streets
Santa Rosa, CA 95404
(707) 545-0831

Department of Toxic Substances Control
Regional Records Office
700 Heinz Avenue, Suite 200
Berkeley, CA 94710
Contact: Lule Varela at (510) 540-3800

Site documents are also available at www.envirostor.dtsc.ca.gov. Type in "Santa Rosa" next to the "city" box, then go to the bottom of the page and "click" on "Get Report". You will find the Golden Technology Site listed in alphabetical order. "Click" on "Report" next to the site name. "Click" the "Community Involvement" button and you will be taken to several documents available for review.

Who to Contact for Information

If you have any questions about the project or cleanup activities, please contact:

Janet Naito
DTSC Project Manager
(510) 540-3833
jnaito@dtsc.ca.gov

Heidi Nelson
DTSC Public Participation Specialist
Toll free at (866) 495-5651
hnelson@dtsc.ca.gov

Media Inquiries:

Claudia Loomis
DTSC Public Information Officer
(916) 255-6578
cloomis@dtsc.ca.gov

Notice to Hearing-Impaired Individuals

You can obtain additional information about the site by using the California State Relay Service at (888) 877 5378 (TDD). Ask them to contact Janet Naito at (510) 540-3833 regarding the Golden Technology site.

COMMENT FORM AND MAILING COUPON
GOLDEN TECHNOLOGY SITE, SANTA ROSA, CA

You may use this sheet to:
* send us your comments
* be added to or taken off the mailing list

If you use this form to send us your comments, please include your name and address.
All written comments must be postmarked no later than December 12, 2008. Please send this form to:

Janet Naito, Project Manager
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710

You may also email this same information to: jnaito@dtsc.ca.gov
___ Please take me off the mailing list
___ Please add me to the mailing list

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Affiliation (if any): _____¬_____
Phone number (optional) _____
Comments: (If you need more space, please feel free to use another sheet of paper)

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Our mailing lists are only used for keeping you informed of our activities. However, they are considered public records and, if requested, may be subject to release.